

Application number 09/835,021
Amendment dated March 2, 2004
Amendment under 37 CFR 1.116 Expedited Procedure
Examining Group 2816

PATENT

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-16 (cancelled)

Claim 17 (previously presented) A circuit for buffering RF signals

comprising:

a first device coupled between a first output node and a first supply node, having a control electrode coupled to a first input node;

a second device coupled between a second output node and the first supply node, having a control electrode coupled to a second input node;

a third device coupled between a second supply node and the first output node, having a control electrode coupled to the second output node;

a fourth device coupled between the second supply node and the second output node, having a control electrode coupled to the first output node;

a fifth device coupled between the first device and the first output node;

a sixth device coupled between the second device and the second output node;

a seventh device coupled between a current source and the first supply node, having a control electrode coupled to the first input node and the second input node; and

an inductor coupled between the first output node and the second output node.

Claim 18 (previously presented) The circuit of claim 17 wherein the first device and the second device are NMOS devices, and the third device and fourth device are PMOS devices.

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Examining Group 2816

PATENT

Claim 19 (original) An integrated circuit, wherein the integrated circuit comprises the circuit of claim 18.

Claim 20 (original) A transceiver comprising the circuit of claim 18.

Claim 21 (currently amended) ~~An~~ A computing device comprising:
a memory;
a central processing unit coupled to the memory; and
the transceiver of claim 20 coupled to the central processing unit.

Claims 22-24 (cancelled)

Claim 25 (previously presented) A method of buffering an RF signal comprising:
receiving the RF signal, wherein the RF signal alternates between a first polarity and a second polarity;
generating a first current, wherein the first current is proportional to the RF signal when the RF signal has the first polarity, and approximately equal to zero when the RF signal has the second polarity;
generating a second current, wherein the second current is proportional to the RF signal when the RF signal has the second polarity, and approximately equal to zero when the RF signal has the first polarity;
using the first current to generate a third current, the third current proportional to the first current;
using the second current to generate a fourth current, the fourth current proportional to the second current;
applying the first and fourth currents to a first terminal of an inductor; and
applying the second and third currents to a second terminal of the inductor,

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PATENT

wherein the first current is geometrically proportional to the RF signal when the RF signal has the first polarity, and the second current is geometrically proportional to the RF signal when the RF signal has the second polarity.

Claim 26-30 (cancelled)

Claim 31 (previously presented) The circuit of claim 17 wherein the seventh device receives a current from the current source and biases the first device and the second device.

Claim 32 (currently amended) The circuit of claim 31 wherein the first device and the second device are biased to have DC gate-to-source voltages approximately equal to their threshold voltages.

Claim 33 (previously presented) The method of claim 25 wherein a first terminal of a capacitor is coupled to the first terminal of the inductor.

Claim 34 (previously presented) The method of claim 33 wherein a second terminal of the capacitor is coupled to the second terminal of the inductor and the capacitor and inductor form a tank circuit.

Claim 35 (previously presented) The method of claim 34 wherein the RF signal alternates between the first polarity and the second polarity at a first frequency, the tank circuit has a resonant frequency at a second frequency, and the first frequency and second frequency are approximately equal.

Claim 36 (currently amended) The method of claim 33 wherein the first current and the second current are generated by transistors that are biased to have DC gate-source voltages approximately equal to their threshold voltages.

Claim 37 (previously presented) A circuit for amplifying RF signals comprising:

Application number 09/835,021
Amendment dated March 2, 2004
Amendment under 37 CFR 1.116 Expedited Procedure
Examining Group 2816

PATENT

a first device coupled between a first output node and a first supply node, having a control electrode coupled to a first input node;

a second device coupled between a second output node and the first supply node, having a control electrode coupled to a second input node;

a third device coupled between a second supply node and the first output node, having a control electrode coupled to the second output node;

a fourth device coupled between the second supply node and the second output node, having a control electrode coupled to the first output node;

a fifth device coupled between a current source and the first supply node, having a control electrode coupled to the first input node and the second input node; and

an inductor coupled between the first output node and the second output node.

Claim 38 (previously presented) The circuit of claim 37 wherein the first device, the second device, and the fifth device are NMOS devices, and the third device and fourth device are PMOS devices.

Claim 39 (currently amended) The circuit of claim 37 wherein the ~~seventh~~ fifth device receives a current from the current source and biases the first device and the second device.

Claim 40 (currently amended) The circuit of claim 39 wherein the first device and the second device are biased to have DC gate-to-source voltages approximately equal to their threshold voltages.